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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/028,448

10/25/2001

Yasuo Suda

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2051

27123

7590

05/16/2006

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EXAMINER

QUIETT, CARRAMAH J

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/028,448	SUDA, YASUO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Carramah J. Quiett	2622	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment(s), filed on 03/03/2006, have been entered and made of record. Claims 10-11 are pending.

### ***Response to Arguments***

2. Applicant's arguments filed 03/03/2006 have been fully considered but they are not persuasive.

With respect to claim 10, the Applicants asserts that Kinoshita does not disclose the claimed feature. Particularly, the Applicant states that,

“In an image sensing apparatus disclosed in the cited reference Kinoshita, light from an object is split in four light beams by a prism and the light beams are sensed by four different image sensors that are not arranged on a single plane. The first and second image sensing areas thus do not exist on a single plane. This structure makes an optical system of the image sensing apparatus larger.”

The Examiner respectfully disagrees. That particular limitation of claim 10 is recited as, “...a single image sensing element having first and second image sensing areas with substantially the same size on a single plane.” With respect to Kinoshita, the examiner considers all of figure 1 as a single imaging element. Figure 1 also illustrates the first imaging area, which is DG1, and the second imaging area, which is DG2. Then, as shown in figure 6B, the first and second image sensing areas (DG1/DG2) are substantially the same size. The first imaging area (DG1) is on a single plane and the second imaging area (DG2) is on a single plane. Please read col. 4, lines 12-38; col. 5, lines 10-15.

3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., first and

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second image sensing areas existing/arranged on a single plane) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 10-11** are rejected under 35 U.S.C. 102(b) as being anticipated by Kinoshita et al. (U.S. Patent #5,726,709).

For **claim 10**, Kinoshita discloses an image sensing apparatus (fig. 11) comprising:

a single image sensing element (fig.1, the color separation optical system) having first and second image sensing areas (DG1/DG2) with substantially the same size on a single plane (col. 4, lines 12-38; col. 5, lines 10-15) -- all of fig. 1 illustrates a single imaging element. Fig. 1 also illustrates the first imaging area, which is DG1, and the second imaging area, which is DG2. Then, as shown in fig. 6B, the first and second image sensing areas (DG1/DG2) are substantially the same size. The first imaging area (DG1) is on a single plane and the second imaging area (DG2) is on a single plane;

a photographing optical system that respectively forms first and second object images on the first and second image sensing areas (col. 4, lines 12-38); and

a signal processing device (figs. 11/12, refs. 65) that processes an output signal from said image sensing element (col. 8, lines 13-47 and col. 9, lines 5-45),

wherein each of the first and second image sensing areas has a matrix of a plurality of pixels arranged at a pitch  $a$  in the horizontal direction and a pitch  $b$  in the vertical direction on a light-receiving surface (col. 5, lines 57-67), the first and second image sensing areas have a positional relationship in which the first and second image sensing areas are separated  $axhxc$  in the horizontal direction horizontally and  $bxc$  in the vertical direction (where  $h$  is a positive integer and  $c$  is constant) (col. 6, lines 57-63; col. 7, lines 23-26 and 49-59), said image sensing element forms first and second images which are formed to have an identical spectral distribution and have substantially the same fields of view (col. 7, lines 3-8), and said signal processing device generates a composite image signal based on the first and second images (col. 7, lines 3-8; col. 8, line 38-47). Also, please see figs. 1-13 and read col. 6, lines 39-63; col. 7, lines 3-59.

Please note that in col. 5, lines 57-67, Kinoshita defines the horizontal pixel pitch as  $5.7\mu\text{m}$  (pitch  $a$ ) and the vertical pixel pitch as  $5.0\mu\text{m}$  (pitch  $b$ ). Then in col. 6, lines 57-63 and col. 7, lines 23-26, Kinoshita teaches that image sensor DG1 and DG2 are shifted with a vertical one pixel pitch ( $axhxc$ , where  $h = c = 1$ ) and shifted with a half horizontal pixel pitch ( $bxc$ , where  $c = \frac{1}{2}$ ). Please see figs. 6B and 6C.

For **claim 11**, Kinoshita discloses the apparatus wherein said signal processing device corrects a change in spacing between the first and second images during processing of an output signal, and forms a composite image signal based on the first and second images. Please read col. 8, lines 13-47 and col. 9, lines 5-45.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571) 272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJQ  
May 12, 2006



NGOC-YEN VU  
SUPERVISORY PATENT EXAMINER